

THE EUGENICS REVIEW

THE RELATION OF EUGENICS TO ECONOMICS

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It is often remarked that a prominent characteristic of modern scientific study is its increasing specialisation. New sciences are constantly claiming recognition, and within the old ones the subject matter is more and more falling into separate departments, any one of which sufficiently absorbs the attention of a student.

This tendency to specialisation is no less true of the Social Sciences than of the older branches of study. The application of scientific conceptions and methods to the explanation of human activities is still a recent development, but since Mill's day the controversy between the advocates of synthesis and analysis has resulted in the victory of the latter and a variety of distinct Social Sciences, Economics, Politics, Ethics, Psychology, Anthropology, Eugenics has arisen, each claiming to investigate more or less in abstraction, a particular aspect of social life.

No doubt such specialisation has been, and will continue to be justified. The extent and complexity of the subject matter has compelled students to divide the field. But, however purely scientific may be the standpoint of such students, the ultimate justification and end of science is the practical aid which it affords to the achievement of well-being.

And herein lies the danger besetting every specialism. For life is not a collection of distinct and isolated activities. It is a whole of connected and mutually determining interests and needs. The keynote of our practical effort at the present time is the determination to view life as a whole ; to organise our activities in the interests of a Common Good ; to assign their true relative values to the competing ends which life presents.

If Science is to be the handmaid to Art, is to direct the work of social organisation, it is imperatively necessary that we should transcend the limitations imposed by specialisation in order that the abstract conclusions of the different specialists may be synthesised, arranged in their true perspective, and assigned their respective values for practice.

It is a profound misfortune that the task of making such a synthesis has been mainly left to those practical reformers and politicians who have often lacked the scientific knowledge necessary for the purpose. A true scientist rightly hesitates to indulge in hasty speculation or prophecy. Realising the abstract nature of his conclusions, he shelters himself from any responsibility with regard to their application by speaking of them as " tendencies " rather than laws.

But such caution may be carried to excess. It may even be evidence of intellectual cowardice and of an unjustifiable divorce between science and practice, which the scientist might himself be best qualified to prevent. At the outset of this paper then, I wish to warn my hearers against the dangers of specialisation, the over-emphasis of conclusions drawn from a partial study of some isolated aspect of social life, and to plead the urgent necessity of a synthetic study of society by means of which specialist conclusions may be co-ordinated and interpreted in rules of conduct.

This need for synthesis is being increasingly manifested in the demand for an ethical review of economic conclusions. The older habit of regarding a purely economic deduction as the equivalent of a command in the imperative mood is fast disappearing. The younger economists are constantly reviewing economic institutions in the light of ethical standards. A few years back Dr. Marshall stated that little or nothing remained to

be achieved by the economist in the direction of qualitative analysis: that his future concern would be altogether with the discovery of more accurate quantitative generalisations. This, within the sphere of economic specialism, is true. But even more true is it that the economist of the future will have to study the social and ethical quality of those particular activities and institutions which he studies.

But the ethical problem itself presents two aspects. It raises the question as to what things are desirable in themselves and the further question as to what are the best means to the desired ends.

Among social reformers there is probably little real difference regarding ultimate ends, but profound disagreement as to the best means. In its most frequent manifestation this disagreement has turned upon the extent to which economic conditions may be improved by leaving individuals free to act as they think best, free also to experience the results of their own misfortunes or defects, or, the extent to which by forcibly interfering with individual freedom an improvement of environment and condition may be secured. The former opinion is supported by those who emphasize the dependence of good conditions upon goodness of character, and believe that character is, in the main, moulded by leaving individuals to experience the fruits of their own conduct. Thus disciplined, it is thought, the individual will be competent to reform his environment to the best purpose.

The latter opinion rather lays stress on the dependence of character upon environment and upon the impotence of the individual to improve that environment, unless by the aid of far-reaching changes in the existing economic and political structure, to be effected by Corporate intervention.

Now it will be noticed that in both these schools of thought the individual is regarded as modified by external influences. The one relies on the invigorating effect of leaving people to face and surmount the evils of life. The other believes that a fitting environment will alone produce the desired qualities in the individual.

It is here that the modern biologist enters into the controversy and propounds a theory that is in opposition to both

alike. Improvement, he argues, in the individual does not come primarily from the reaction of external circumstances. It depends upon the innate qualities which are inherited from the parents. To ask whether life may be improved mainly by relying upon individual effort or by State interference thus leaves out of account the most important consideration of all, namely, that the general level of capacity can only be raised by the improvement of inherited characteristics.

The application of biological conceptions to economic and political life, is, of course, not new. Spencer indeed lays the foundation of his politics in biology. From hedonic motives the organism, he taught, is constantly striving to adapt itself to environment. This effort leads to the development of socially useful qualities in the individual, which are strengthened in the using, and transmitted in their heightened form to the next generation. Spencer's individualism is chiefly the result of his desire to leave people free to adapt themselves. Forcibly to change environment by means other than the natural process of adaptation, is only to cause a greater estrangement between that environment and the organism, and to prevent the appearance in the individual of those desirable qualities which are strengthened by individual activity.

The fundamental difference between the new biology and the old arises from the modern rejection of the transmission of acquired characteristics. Individuals differ primarily in respect of mental and physical qualities on account of differences inherent in the germs from which they spring. The quality of these germs is not affected broadly speaking, by their environment. The only true method therefore by which the general level of these qualities can be permanently improved is to secure the perpetuation of the human race by the selection of the fit and by eliminating the unfit. The Mendelian discovery is equally important, although in a secondary sense, for by its application we can, having analysed human qualities into their biological elements, fix them by the process of selection in the course of a few generations.

The Science of Eugenics is concerned with the application of these biological ideas to the improvement of the human race.

We have to ask what is the bearing of this new science upon Economics, or rather upon that branch of Economics, called Economic Politics, which is devoted to the practical amelioration of economic conditions.

It should be clearly understood that the Science of Eugenics does not include within its scope the determination of the ultimate end or goal of human activity.

That is an Ethical problem. As Professor Hobhouse has recently said, the application of Eugenics must be directed by a social philosophy to which belongs the task of defining the end to be sought. Without entering into a discussion as to the nature of good, we shall probably at least agree, that it is much wider in its nature than the immediate object which Eugenists set before themselves, namely, the improvement of the physical and mental qualities of the community. It is necessary therefore to ask at the outset, whether this larger end is compatible with the Eugenic method. There are some at least who argue that any attempt to control the free activity of the individual in matters of breeding must involve a greater evil than any good that may result. The picture of society organised as a stud-farm arouses disgust. It is sometimes feared that the Eugenic programme would involve the destruction of normal family life and the mutual affection upon which it is based. To favour the "successful types" it may be argued, would result in the evolution of hard, unlovely characters. To some the continuance of the poor and weakly is even approved as a necessary condition for the expression of the nobler qualities of mercy and pity. It seems a sufficient answer to objections of this kind to point out that the Eugenic proposals do not contemplate the conversion of society into a stud-farm, neither are they likely to result in suppressing those forms of social life necessary to the manifestation of love and pity. The young and the old at any rate will remain. Moreover, as regards the poor and inefficient we are all as a matter of fact striving in one way or other to prevent their continuance. It would be strangely illogical to desire at the same time that we should be unsuccessful.

If it be maintained that on grounds of justice we have no right to interfere with the individual liberty of defectives such as the

feeble-minded or the chronic inebriate, then on the same ground we should not interfere with the thief or the murderer. The only difference is that we restrain the latter in the interest of the present generation, the former in the interest of the next. It is a pity that some enthusiasts give needless ground for such fears when using phrases about, "compelling if need be healthy women to have children."

While I think there is no ground for believing that there is any necessary opposition between the Eugenic method and the true End of Social Life, it may be at once admitted that the application of Eugenic ideas is still in a speculative and often in an uncritical stage. Such individual speculations and suggestions are often hasty and untenable. They show an ignorance regarding the psychology of the individual and the economic organisation of society. Often they assume a finality in the conclusions of biology which leading biologists would be the first to reject. But such defects are the inevitable consequences of applying new and important conceptions to a sphere in which they have not yet been tested or received.

It is the more necessary that social students should, in a scientific spirit, examine the relation of these new ideas to the science of social organisation, the more so if one is convinced, as I am, of the extreme importance of wisely applying them.

Eugenic methods fall into two divisions; (a) the direct, and (b) the indirect.

The direct methods are mainly negative in character, that is, they aim at the prevention of propagation among certain classes of marked defectives, the defects being ascertainably hereditary in character. With our present knowledge such methods are usually advocated only in the case of the feeble-minded and less frequently in the lowest class of paupers, habitual inebriates, and syphilitic patients. Positive direct methods aim at the encouragement of propagation among the admittedly fit, as for example, in the proposal of Dr. McDougall, to differentiate the salaries of the higher Civil Servants according to the size of their families.

Since the application of the direct method depends upon the possibility of defining the class of fit or unfit and showing

that their condition is due to hereditary causes, the same question has to be discussed as is raised in considering the indirect method, namely, whether we possess the requisite knowledge of individuals and of the laws of heredity to make such definition possible. The direct application of Eugenic method is, however, more drastic and is therefore to be used with the greater caution.

The indirect method consists in favouring such forms of social organisation as will result in the improvement of the general standard of physical and mental capacity other than by direct methods.

It is mainly the application of this latter method that I want further to discuss.

The subject falls into three divisions :

(a) What is to be the criterion of "fitness" ?

(b) How far does the existing Economic system enable us to apply such criterion ?

(c) How may survival of the "fit" be better secured.

A. The criterion of "Fitness."

In discussing this subject we may easily become involved in endless difficulties. Ultimately "fitness" implies the possession of those qualities compatible with or necessary for the maintenance of a proper society. Since we cannot pretend to foresee the end of social progress, neither can we foresee the character of perfect men. It is profitless, therefore, to discuss the ultimate implications of the term "fit."

We must equally beware of assuming that those qualities, and only those qualities, are marks of fitness which enable persons to flourish in existing society. Men often live upon the folly, or the wickedness, or the passing necessity of their fellows. Not a few are Socialists primarily because a system of competitive industry appears to put a premium upon the qualities of selfishness and love of material wealth.

There is, nevertheless, a general agreement regarding the necessity in any form of society for the presence of certain qualities—good health, a well-developed physique, energy, and mental power. With these as a basis the "social virtues" can be acquired. But these are themselves not simple qualities.

“Effective mental ability is largely a matter of temperament and this in turn is quite possibly dependent upon the various secretions produced by the different tissues of the body. . . . Though there is no doubt that mental ability is inherited, what it is that is transmitted is at present uncertain,” says Professor Punnett.

For the purpose of the indirect Eugenic method, what is needed is a general external index of Eugenic worth, such, that by favouring for purposes of propagation those in whom the desirable qualities are present in preference to those in whom they are absent, we may raise the general quality of the community. Does such an index exist in our present state of knowledge? It must be admitted, I think, that it does not exist in sufficient degree of accuracy to make possible the application of the direct negative method—that is the direct prohibition of propagation in specific individuals apart from the few cases already admitted. But it may exist sufficiently accurately to enable us to define the broad social groups from whom it is desirable that the majority of our children should be born.

Admitting that there are many other qualities of worth besides those of physical and mental vigour, and even admitting further that these are not simple qualities, it seems to me defensible to accept these qualities for the purposes of our index, if we may assume that the other undefined desirable qualities are either less important than these or are not possessed in inverse proportion to them. General experience affords no evidence that this last is the case.

If we can obtain an external index of the presence or absence of these qualities we may provisionally accept it.

It is comparatively easy to maintain that the occupants of the more important administrative posts, the recipients of the chief scientific and artistic honours, etc., are more than usually endowed with eugenic qualities. Can it be maintained that the poorer classes are less than normally so endowed or, further, that an economic or money income measure of eugenic value can be accepted as valid throughout the range of society?

A modern doctrine of economic distribution lends some

support, at least on the surface, to this theory. It is said that competition *tends* to make economic wages and salaries proportional to efficiency. Those who subsist on rent and interest are of course excluded, as persons, from this theory, although it might with some plausibility be argued that under modern social conditions it requires considerable powers to retain the possession of "unearned" income in face of temptations to foolish speculation or extravagance. In examining the Eugenic application of this theory of remuneration it is important to consider two points: (1) What is the "efficiency" referred to? Is it the same as eugenic quality? (2) How far is the competition, which is presupposed, really present? On the first point it is obvious that economic efficiency is not in its outward form a simple quality. The efficiency of the sign-painter is different in kind from the efficiency of the navvy. Further the economist has no mode of comparing the relative efficiencies of different kinds except in terms of money, and this begs the question as to whether difference of money-income measures difference of efficiency. Again the remuneration of different kinds of efficiency depends on the relative demand for and supply of that particular form of capacity. It is only if we can assume the potential development of some common elements in efficiency, elements present in our definition of eugenic "fitness," into any one of a number of alternative forms according as the economic motive dictates, that we could accept the economic efficiency as measured by money income as an index of eugenic value.

In a broad view I believe this assumption to be true. It receives a measure of support from an investigation made by Professor Moore into the relation of American wages and the distribution of efficiency independently determined. (*Ec. Journal*, Vol. 17, p. 571.) He accepts Professor Marshall's theorem that "what makes one occupation higher than another, what makes the workers of one town or country more efficient than those of another, is chiefly a superiority in general sagacity and energy which is not specialised in any one trade." He then accepts Professor Pearson's theory that the distribution of mental and moral qualities in men follows the normal or Gaussian curve. By reference to the United States wages statistics in all manu-

factures he shows that the actual curve of wage distribution conforms approximately to the Gaussian curve.

The wages of those employed in manufacture would thus seem to be a fair index of the extent to which "general sagacity and energy" are present.

But the wage-earners employed in manufacture are in an environment in which competition is fairly effective and in which we should expect to find that degree of mobility which will result in individual earnings being proportional to efficiency. Even within this group economic friction is considerable. Lack of education and industrial training, together with the evil influences of home surroundings, prevent many at the lower end of the scale from attaining the position to which their natural powers entitle them. From this point of view improvement in environment and increased equality of opportunity are essential if the economic index of eugenic quality is to be rendered accurate.

To what extent, however, is the manual wage-earning group continuous with the clerical group and with the organising, directing and professional group, as regards the free mobility of individuals between them?

The other day Mr. Andrew Carnegie was asked what chance an able employee had in modern industry of rising to the employer class. He answered that some day the employer would be ill. He would send for his employee. Perhaps the employee would meet his master's daughter. That would be his chance. The story suggests that able men in the subordinate ranks can not rely upon ability alone to advance them in the economic scale beyond the boundaries of their own group.

The chief avenue to advancement open to the wage-earning class used to be through the ranks of the retail shop-keeper or small employer. The eagerness with which working-class people adventure their savings in small shops is partly due to the greater freedom of such a life, partly to the opportunity it affords to social ambition. With the decay of the small shopkeeper through the growth of department stores, and with the decline in small scale industry, these opportunities may be reduced. But it seems probable that in modern large scale industry, with the variety of economic posts included within each industrial unit, the

opportunity to rise is not less than before but greater. For mobility within the unit is probably greater than between different units and the capable individual is enabled to rise without being compelled to bear the heavier risks of business success or failure. This was the opinion of Viscount Goschen, who, when Chancellor of the Exchequer, made some interesting investigations into the growth of income which showed that moderate incomes were increasing at a faster rate than large incomes. Thus, from 1877 to 1886 the increase of incomes between £150 and £500 was 21·4 per cent. This is a much greater increase than can be accounted for by natural increase of population within the class, and points to a considerable flow from the lower economic grades to the higher. A not inconsiderable effect in the promotion of inter-class mobility results from the method of recruiting elementary school teachers. They are largely obtained from the children of working-class parents. They need show little more than the requisite ability and inclination, since the chief expenses of education and even of maintenance are disbursed by the State. We may conclude then that there is, mainly through the rising generation, a very considerable degree of mobility between the different economic groups, and that the determining factor in the movement is largely the possession of "energy and sagacity."

Friction, nevertheless, probably causes the lower grades of one social group to be of considerably lower ability than the higher grades of the group next below it. But social classes are not coincident with economic classes as determined by income. The latter index is likely to be considerably more accurate except for the upper exterior than the former.

It is not sufficient, however, to show that society is roughly graded according to economic ability and that this appears to coincide with fair accuracy with Eugenically desirable qualities. It must also be shown that these qualities are primarily of an hereditary character and not simply due to differences of environment.

In our present state of knowledge it is, it seems to me, impossible accurately to determine the extent to which the qualities which ensure success are due to hereditary equality

or to environment. As Professor Pigou has said "the original properties of the next generation are determined by the nature of the germ cells that produce them, but the goodness to which the social reformer looks is the goodness of concrete men and women, and not of original properties. In the formation of these concrete persons original properties do indeed play a part, but not a predominant part." "The current environment actually enjoyed by a living being co-operates with his original properties to form the sum of his qualities."

All that we are justified in affirming is that in the upward and downward flow, which is constantly re-grading society, economically, inherited quality, plays an important part. Galton sums up the case when he says, "Enough is already known to those who have studied the question to leave no doubt in their minds about the general results, but not enough is quantitatively known to justify legislation or other action except in extreme cases."

It may be taken as established, therefore, but in an approximate and rough degree only, that the economic index of money income corresponds to innate and eugenically desirable qualities.

B. Eugenic Grading : how far it may be improved.

Passing now to my second chief point, I wish to maintain that it is desirable that Society should be graded with increasing accuracy according to eugenic quality, and that this will be best effected for practical purposes by seeking to make the economic index as correct as possible. This leads to the question, how far do present economic and social tendencies make for such a result.

In view of the fact that the birth-rate is highest among the poorer sections of the community and that at present they are contributing more than in proportion to the future population, it might perhaps be argued that it would be Eugenic to reduce all to a perfect equality of economic condition. For then all classes would probably contribute nearly equally to the population, and the somewhat higher death rate of the least fit would result possibly in some slight increase in the general level of Eugenic quality. But, apart from the other evil results that would

probably follow from such artificial equality, it would prevent one of the most effective means of applying the direct Eugenic method, namely, by putting under control those members of the community who fall below an assigned economic standard; in other words by making the poor law an Eugenic agent.

To improve the accuracy of the Eugenic index it is necessary that all members of the community should be dependent for their economic position on their own efforts and that by competition they should find their proper level according to their "energy and sagacity." It should be our aim, therefore, to make as great as possible the economic mobility of individuals, and for this purpose each should be secured in the greatest possible degree in such necessary preparation for economic life as will give full opportunity for the exercise of natural ability. Incidentally it should not be forgotten that capacity to overcome obstacles is a desirable form of natural ability.

What are the chief obstacles to such economic grading presented in our present society? I can only here mention a few instances by way of example.

I. Restrictions upon free competition.

I do not here refer to such legislation as the Factory Acts, or to the compulsory Eight Hours Act in Mines. The purpose of these Acts is to prevent private enterprise from assuming forms which are destructive of normal health and strength. They do not prevent economic grading according to ability for they do not prevent each individual from doing his best and receiving a proportional reward.

Again, I do not include such limitation to competition as is secured by the Trades Boards Act. Such interference is definitely Eugenic, provided the necessary further steps are taken. For it prevents those unable to earn a minimum wage from earning at all and thus helps to mark off the class for whom the direct method is appropriate.

But all interference is bad which prevents a man from having the freedom to do his best and to be graded according to capacity. Trade Union action is sometimes of this kind. State employment often tends to be of this character. There is, however, little effective interference of this kind outside the

sphere of the lowest class, subsidised by an indiscriminate poor law. This suggests the second anti-Eugenic influence.

II. The transference of burdens from the individual to the Community.

Clearly by making goods of individual consumption a common charge, we tend towards relieving such individual from the necessary exertion to provide for himself and, if the process is carried to extremes, it does away with the economic index altogether. But the argument must not be pressed too far. Wants are elastic. If relieved from the necessity of supplying some wants a man will gradually develop others that appear equally urgent. The efforts to supply them will thus involve the expenditure of energy probably as great as before. Moreover, as society is now constituted, it is desirable that some charges, *e.g.*, Education, should be a common charge in so far as without such method of provision, a considerable number of persons would be prevented from making the best use of their natural capacity.

The objection to such community of provision in its extreme form implies that low-grade population is thus enabled to live and propagate that would otherwise die out or be forced within the sphere of direct Eugenic control. The answer to this objection is that to rely upon natural selection of this sort is impossible in a civilised community and that the lowest class may still be segregated by raising the minimum demands so as to be effective notwithstanding a certain measure of collective provision.

III. The absence of equality of opportunity.

So long as private family life and differences of family income continue, those of the rising generation who spring from homes where the influences are good and where the parents can give their children "a start in life," will have a better opportunity than the rest. I do not wish to press the idea of equal opportunity beyond such limits as are implied in securing a sufficiency of the necessities for physical health and strength to every growing member of the community, together with facilities for obtaining such general and special education as can be profitably acquired, having regard to the ability of the learner. It used to be thought that in the interests of parental responsibility children should only be relieved when the parents had

reached such stage of destitution as led them to seek aid from the poor law. Some biologists would seem to favour a rigorous adoption of this method for two reasons. (1) The poorest classes, and so far as the economic index is accurate the least naturally capable, if deprived of assistance, will either cease to propagate, or, owing to the ravages of ill-health, will not survive. Those among the very poor who have capacity will be stimulated to use it, and so rise above the need for relief. (2) Since environment does not affect the germ, poverty will not weaken the natural powers of the stock.

In opposition to this theory I should maintain (1) that an administration of relief so vigorous as effectively to check the survival of the unfit is impossible under modern social conditions. If the state is harsh, private charity is lax and abundant.

(2) That in thickly populated countries to leave the poorest classes unaided makes eugenic selection among them impossible, since the evil effects of environment are so serious that they effectively hamper the majority of those who possess even a fair measure of natural capacity. They therefore fail to attain to positions in which their powers are of use.

(3) That failing to achieve the desired eugenic purpose, such a policy causes much unnecessary suffering and perpetuates a class that is a burden upon the community.

If this argument is sound it seems to follow that other means of enforcing responsibility must be found. That to improve the economic and eugenio grading of society our social institutions must afford to individuals reasonable economic security against the risks of life. That, given a fair opportunity to all, we must replace natural selection by social selection by preventing those who fail from adding to the population. To make this an effective instrument of progress we must make the sum of demands upon the individual an increasing, not a diminishing quantity. Life must become more, not less strenuous. Equality of opportunity is likely to have this result. This leads to the last point upon which I would touch.

C. How to secure a better Eugenic quality in our population.

The outstanding feature of existing society upon which biologists lay stress is the extent to which the population is

recruited from the poorer sections of the community. As Mr. Heron has said, "the wives in the district of least prosperity and culture have the largest families and the morally and socially lowest class in the community are reproducing themselves with the greatest rapidity." Moreover, the intensity of the relation between undesirable social conditions and a high birth rate has almost doubled in fifty years. Admitting that the economic index is but a rough measure of eugenic quality, still the fact is extremely serious. We cannot shield ourselves from responsibility behind our ignorance of the exact distribution of eugenic quality among the economic classes, for we do know enough to give a real and serious import to Mr. Heron's figures. Professor Hobhouse, in a recent article, argues that we need not be disturbed by this phenomenon of class reproduction since there are no signs of degeneration, despite the fact that natural selection has been suspended long enough to have produced such result if we were really breeding from inferior stocks. Mr. Balfour in his address to the Prevention of Destitution Congress questioned the biologist's argument on the ground that, if the poor were the unfit and the successful the fit, we should long ago have had a segregation of efficiency among the upper and social classes.

To the former objection I would answer (1) that the deterioration would not necessarily show itself in any easily measurable form such as physical defect or decreased longevity counteracting the influences of better hygiene; (2) that even if there is a mean standard of efficiency to which all classes tend to return, we may lower this mean standard by selecting from inferior stocks, while we should in fact aim at raising the mean standard. But Professor Hobhouse relies mainly for comfort upon the new theory of mutation, arguing that mutations of a useful kind may occur in any grade of society, thus giving rise to new and desirable stocks. It is, therefore, primarily important to preserve an environment of a favourable character to welcome the mutations where they may occur. This seems to me merely trusting to luck, while, mutations apart, if mental ability is really hereditary then clearly we shall decrease the general ability by breeding from the least able.

Mr. Balfour's question is an attempted *reductio ad absurdum*.

But is it so certain that we have not something approaching to segregation of higher grades of ability in the middle and upper classes? The considerable measure of family stability under the conditions of modern competition suggests that the idea is not wholly absurd. No doubt fairly able persons are constantly falling considerably in the social scale through misfortune or vice and thus leavening the lower grades. Is it certain that at these lower levels there is not a fairly permanent body of persons having a low level of ability, a class that might be called an hereditary pauper class?

While readily admitting that we are here in a region where investigation is badly needed for the purpose of throwing fresh light, I still think there is strong *prima facie* ground for uneasiness.

But, admitting the reality of the evil, the important questions for social politics are to what cause is it due and how may the evil be remedied?

Such questions cannot be attacked at the end of a paper, but I should like to refer to a few points. Some Eugenists have recently propounded the theory which may almost be stated as involving an essential opposition between the attempt to improve Environment and the attempt to improve Eugenic quality. In a recent most interesting essay Mr. and Mrs. Whetham maintain this thesis, although in a manner intentionally one-sided, and intended as "a suggestive and challenging statement." Remembering this, I would still argue that the opposition is not a true one, in the sense that it does not present a true alternative between two causes of social development.

They say "as long as, or whenever, man has been an unconscious, natural, freely breeding animal, Nature has provided a sure method of attaining her end, the survival of the fittest, and man has found himself endowed progressively with the necessary means of keeping pace with her movements, and has been able to profit by every increase she has affected in his aptitudes and intelligence."

But surely it is not Nature's changes that are of chief importance in respect of the demands made upon human aptitude. It is the changes that occur in human ideals, in the nature and

complexity of human wants and interests. But these are themselves dependent on the change and improvement of environment by which man is set free from the pressure of the primary wants. The very medium in which alone the higher work of selection can be achieved is a medium in which civilisation, the social organisation necessary to overcome primitive nature, exists. Improved environment is not thus opposed but complementary to improved natural quality in man. And one condition of improved environment is a general restriction of the population so as to bring members within the capacity for economic production at a high level of individual consumption. Apart from complete state control of all child-bearing or child-survival, this restriction must be attained by voluntary limitation. Thus the present tendency towards a reduced birth-rate is a condition of progress.

It may at once be admitted that, if, as has been argued, the economic index is a rough measure of eugenic worth, it is not desirable that this restraint should be chiefly imposed by the abler classes. How can we redistribute the proportions in which the social classes contribute to the next generation? Not by abstention from an enforcement by legislation of improved education and hygiene among the poor, but by further educating the poor, compelling a good environment, and raising the sum of economic demands upon the individual. Broadly speaking, it is in those classes in which an effective home life exists that the tendency to a lower birth-rate is seen. Compel such a minimum standard of housing, and of family expenditure, as will make a decent home life the effective test of capacity for self-maintenance and there will be strong motive towards limitation of families and an indication of those who are proper subjects for eugenic control.

That the cost of such social legislation, *e.g.*, as is implied in the maintenance and control of the unfit, will seriously limit the birth-rate among the well-to-do classes, supposing the cost to fall solely on them, I do not believe.

To some small extent it may be operative. But the effective force that is limiting the size of families among the middle classes is the rapid growth in the average standard of comfort and enjoyment, especially in the increasing degree to which it is shared by women. This force works to a large extent indepen-

dently of any absolute size of income since the standard of comforts desired expands at as fast a rate as income.

The economic motive may be used to reverse the effect of this influence on the birth-rate to some small extent. We might institute a tax on bachelors or exempt from the payment of income tax those under thirty years of age who are living on earned income. But an effective appeal on a large scale would involve the expenditure of larger sums than the national exchequer could bear.

The reform must come through a modification in moral and social ideas. Into this subject it is no part of my purpose to enter.

May I conclude with a quotation from the article by Mr. and Mrs. Whetham, which I regard as summing up from the Eugenic standpoint the fundamental truth that, if society is to advance, it is by steadily replacing Natural Selection, at best blind, cruel, and imperfect, by Social Selection. "If, accepting the burden of moulding the destinies of the race, we relieve Nature of her office of discrimination between the fit and the unfit, if we undertake the protection of the weaker members of the Community, if we assume a corporate responsibility for the existence of all sorts and conditions of men, then, unless we are prepared to cast away the labours of our forefathers and to vanish with the empires of the past, we must accept the office of deciding who are the persons whose moral and intellectual worth make it right that they and their descendants should be placed in a position of pre-eminence in our midst"; or, rather, as I would add, be placed in a position of free and independent citizens as opposed to those to whom parenthood is refused.